

We Claim:

1. A method of operation in a hand-held electronic device comprising the following steps:
 - 5 establishing a wireless connection in a wireless network;
requesting localized resources for at least one application installed on the hand-held electronic device; and
receiving via the wireless connection at least one file that comprises at least some of the requested localized resources.
- 10 2. The method according to claim 1 wherein the hand-held electronic device requests localized resources in response to receiving an indication that the locale has changed.
3. The method according to claim 2 wherein the indication is received via a user's input.
- 15 4. The method according to claim 1 wherein the hand-held electronic device requests localized resources in response to a user's input.
5. The method according to claim 1 wherein at least one of the received one or more files includes one or more types of character fonts.
6. The method according to claim 1 further comprising the following step:
 - 20 receiving via the wireless connection a list that comprises the received one or more files.
7. The method according to claim 1 wherein the receiving step comprises receiving one or more files that collectively comprise localized resources for a plurality of applications installed on the hand-held electronic device.

8. The method according to claim 7 wherein at least two of the plurality of applications are from different vendors.

9. The method of claim 8 wherein the localized resources for the at least two of the plurality of applications from different vendors are stored on a common server on the wireless network.

10. The method of claim 1 wherein at least one of the files includes localized resources for more than one locale.

11. A method of operation in a wireless network that provides services for hand-held electronic devices comprising the following steps:

providing a communication channel for use by a hand-held electronic device in establishing a wireless connection;

receiving a request for local resources from the hand-held electronic device; and

transmitting to the hand-held electronic device at least one file that comprises localized resources for at least one application installed on the hand-held electronic device.

12. A method of operating a wireless network comprising the steps of:

providing a communication channel for use by a hand-held electronic device in establishing a wireless connection; and

providing one or more files on a server or gateway for transmission over the

wireless network to the hand-held electronic device wherein the one or more files include localized resources for one or more applications that are installed on the hand-held electronic device.

13. The method according to any of claims 11 or 12 wherein the one or more files include localized resources for more than one locale.

14. The method according to any of claims 11 or 12 wherein the one or more files include one or more types of character fonts.

5 15. The method according to any of claims 11 or 12 wherein a plurality of the applications are installed on the hand-held electronic device and wherein at least two of the plurality of applications are from different vendors.

16. An article having a medium for storing computer-readable code that when executed by a computing platform results in:

10 downloading over a wireless network to a hand-held electronic device one or more files that include localized resources for one or more applications that are installed on the hand-held electronic device.

17. A method of operation in a hand-held electronic device that has an installed application, comprising:

15 loading a grouping of localized resources for a plurality of locations onto the hand-held electronic device for use with an installed application; and

accessing one of the localized resources when operating the installed application after a current locale is identified.

18. An article having a medium for storing computer-readable code that when

20 executed by a computing platform results in:

accessing at least one local resource of a grouping of localized resources for a plurality of locations for an application by referring to a current locale, to the grouping and to an identifier of a particular resource of the application.

19. A method comprising:

storing localized versions of common resources for more than one locale on a hand-held device; and

providing code that causes the hand-held device to automatically replace

5 occurrences of the common resources in an application installed on the hand-held electronic device with localized versions of the common resources for the current locale.

20. An article having a medium for storing computer-readable code that when executed by a computing platform results in:

automatically replacing occurrences of common resources in an application

10 installed on a hand-held electronic device that does not support a current locale with localized versions of said common resources retrieved from a set of localized versions of said common resources for more than one locale.

21. A method of operation in a wireless network that provides services for hand-held electronic devices comprising the following steps:

15 providing a communication channel for use by a hand-held electronic device in establishing a wireless connection;

pushing updates of an AutoText database over the wireless network to a hand-held electronic device, wherein the AutoText database includes industry-specific terminology.

20 **22.** A method of operation for a hand-held electronic device whose operation in some circumstances is based on its current locale, the method comprising:

identifying a character sequence entered by a user of the hand-held electronic device that matches a predetermined sequence associated with the current locale of the hand-held device;

choosing an article for use with a word that is entered by the user after the character sequence is entered, wherein the article is grammatically correct for the language associated with the current locale; and

automatically replacing the character sequence with the article.

23. A method of operation for a hand-held electronic device whose operation in some circumstances is based on its current locale, the method comprising:

determining that the usage of an article associated with a word is grammatically incorrect in the current locale of the hand-held device after a user of the hand-held electronic device enters a sequence of characters that includes the article and the word; and

automatically replacing the incorrectly used article with a grammatically correct article for the current locale.

24. A method of operation for a hand-held electronic device whose operation in some circumstances is based on its current locale, the method comprising:

when a first locale is a current locale of said hand-held electronic device, automatically replacing a quote character entered by a user of a hand-held electronic device that is preceded by an empty or white space with a first open-quote character for said first locale; and

when a second locale different from said first locale is the current locale of said hand-held electronic device, automatically replacing a quote character entered by a

user of said hand-held electronic device that is preceded by an empty or white space with a second open-quote character for said second locale that is different from said first open-quote character.

25. A method of developing applications for electronic devices comprising:

5 generating a code value for an original language string that is related to a resource of a software application that is used with an electronic device;
 translating the original language string into another language; and
 storing the code value with the translated string.

26. The method of claim 25 wherein the code value is a hash code value.

10 **27.** A method for verifying a translated string comprising:

 generating a code value for an original language string that is related to a resource of a software application that is used with an electronic device; and
 comparing the generated code value to a second code value that is stored with a translated string to determine if the translated string is a translation of the original
15 language string.

28. A method for developing resources for use with a software application for hand-held devices, the method comprising:

 generating localized resource information for a software application;
 listing in a first file keys for the localized resource information;
20 listing in a second file the keys and the localized resource values associated with the keys;
 associating the first file with the second file so that the two files can be analyzed to validate the localized resource information.

29. The method of claim 28 further comprising validating the localized resource information by checking the two files for missing resources.
30. The method of claim 28 further comprising validating the localized resource information by checking the two files for empty resources.
- 5 31. The method of claim 28 further comprising validating the localized resource information by checking the two files for undeclared resources.
32. The method of claim 28 further comprising validating the localized resource information by checking for resources that need an updated translation.
33. The method of claim 28 further comprising validating the localized resource
10 information by determining whether an original resource value and a corresponding localized resource value have the same format.
34. The method of claim 28 further comprising validating the localized resource information by determining whether a display width of a resource exceeds a predefined display width of a screen of the hand-held electronic device.
- 15 35. The method of claim 28 further comprising validating the localized resource information by determining whether, in a particular locale, a hotkey for a software application of the hand-held electronic device is assigned to more than one function.
36. A method for developing resources for use with a software application for hand-held devices, the method comprising:
- 20 generating a collection of localized resource information based on a first branch of code of a software application for a hand-held electronic device; and
copying the collection to a second branch of code of the software application.
37. The method of claim 36, further comprising:

generating in the second branch one or more files comprising localized resources for the second branch from the copied collection .

38. The method of claim 36, further comprising:

updating from the copied collection one or more files comprising localized

5 resources for said second branch.

39. A method of preparing a string for display on a hand-held electronic device, comprising:

identifying a text attribute to be applied to a string;

selecting one of a predefined set of string options that are related to the identified

10 attribute wherein each string option is specific to a locale; and

displaying the string with the selected string option applied.